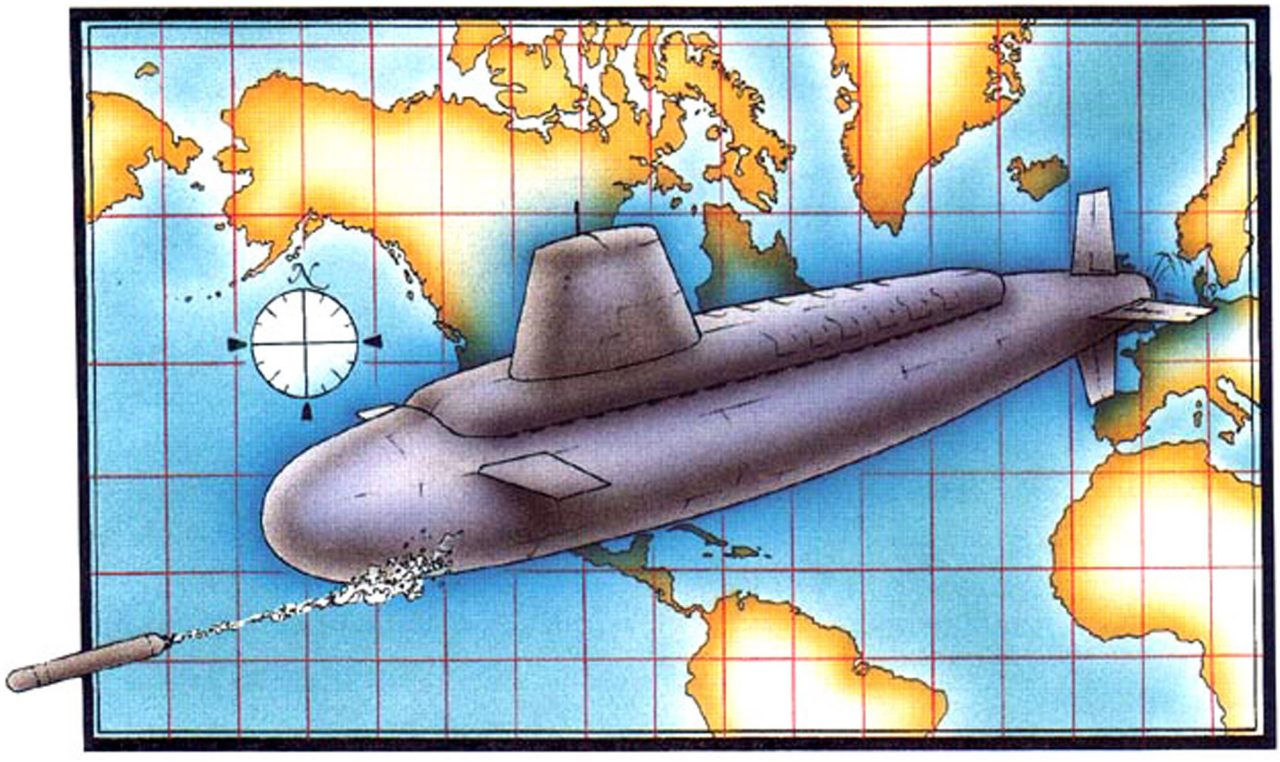
CLASSIFIED!

U.S.S. BLACKHAWK

TECHNICAL MANUAL



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THE U.S.S. BLACKHAWK TECHNICAL MANUAL
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THE U.S.S. BLACKHAWK TECHNICAL MANUAL

INTRODUCTION

TO ALL NAVY PERSONNEL

TO ALL NAVY PERSONNEL- You are a part of the largest and strongest seagoing force in the world. When you were sworn in and put on your uniform for the first time, you became part of a great tradition. All the brave men and women who have gone before you, and those who will follow you, make up an unbroken chain of courage and devotion to duty that should make you proud to wear your uniform.

Service in the Navy can be whatever you make it. It takes some time to understand and become adapted to the ways of the Navy, for going to sea in ships is a tough, serious business, particularly in troubled times. If you must work hard at times, miss a leave period or a few liberties in your home port, remember that you chose a demanding job when you joined the Navy.

BOARDING PROTOCOL

Salute Flag - When standing on the gangway, prior to stepping aboard, face aft and **'salute the flag'**.

Salute Officer of the Deck - After the above, turn and face the Officer of the Deck, salute and **'request permission to come aboard.'**

Presenting orders - After requesting **'permission to come aboard,'** the Officer of the Deck will inspect your orders and grant you permission to board.

THE EXECUTIVE OFFICER

Duties and responsibilities -
The Executive Officer is the number two man under the Captain. His responsibilities are to provide leadership to all men under him while maintaining a feeling of good spirit. The Executive Officer will take command of the ship during any absence of the Captain. It shall be the responsibility of the Executive Officer to insure the operational status of his vessel by inspecting and cycling equipment in the following areas:

1) Control room
2) Machinery compartment
3) Torpedo room
4) Engine room

CONTROL ROOM

PERISCOPES

(Attack & Observation)

Use your periscopes to determine the exact location of an object on the surface. The left and right [Arrow] keys will adjust the heading of the scope. When you have located an object, take note as to its location.

Scopes should only be used at periscope depth (approx. 70'). Severe damage may occur if the 'attack scope' is used at speeds in excess of 5 knots. Severe damage may also occur if the 'observation scope' is used at speeds in excess of 12 knots.

SONARMAN

The sonarman is situated in the control room next to the radioman and to the left of the control panel. Contact with the sonarman and radioman can be made by walking over to them and talking to them.

COMMUNICATIONS

Coded messages

All messages received aboard the U.S.S. Blackhawk will be in coded format and shall be received through the radioman.

Decoding messages

Aboard the U.S.S. Blackhawk can be found a book entitled *US Naval Intelligence Decoding*. This book must be used in conjunction with your technical manual. The word keys used for decoding can be found within the *'boxed shaded'* areas. The coded numbers represent page, line and word. All coded numbers are in the range 0-9.

CHARTS

(Located in control room)

Course plotting

Enclosed within the packaging of this game is a foldout map. Use this map for determining and plotting your course heading.

Coordinates

Using a straight edge, plot your course on the foldout map. When it is necessary for the submarine to change from a direct course, make note of the longitude and latitude of the 'waypoint' (the point at which you'll change direction). These are your coordinates.

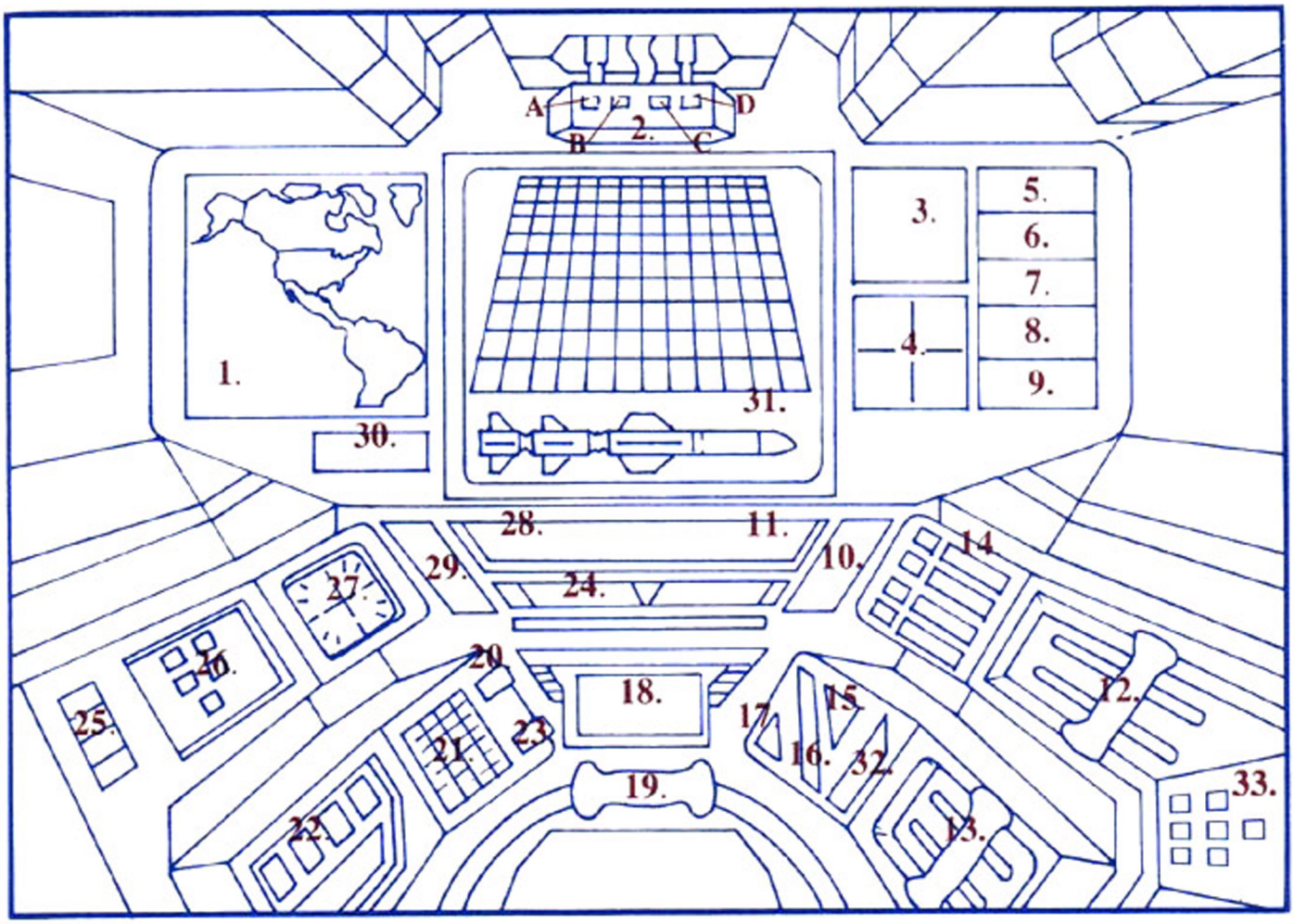
The initial overall course to be followed will be given to you using landmarks. Using the foldout map and the landmarks as a guide, chart your 'way points' on the map and then enter them into the computerized charts table located in the control room. You

may also receive information via radio, of other specific way points for rendezvous purposes. Type: **look map** to get a close-up view. The flashing point on the map represents your vessel at its current location.

To begin entering way points Type: **plot course.**

When entering the way points, use the directional keys until the longitude and latitude that you have calculated on the foldout map are displayed. Depress the [ENTER] key on your keyboard to enter the way point. To change a way point already entered Type: **change point**. Repeat the above sequence until you have entered all your way points. When entering the last way point, depress the [ENTER] key twice.

CONTROL PANEL



1. MAP
2. FIRE CONTROL PANEL
3. VERTICAL SONAR
4. RANGING SONAR
5. DEPTH GAUGE
6. WATER TEMPERATURE
7. TIME CLOCK
8. SPEED (IN KNOTS)
9. RPM INDICATOR
10. STERN PLANE INDICATOR
11. LONGITUDE INDICATOR
12. DIVE LEVER
13. ENGINE LEVER
14. BALLAST INDICATOR
15. SILENT RUN ON/OFF
16. SILENT RUN INDICATOR
17. SONAR ON/OFF
18. ATTITUDE INDICATOR
19. WHEEL
20. CLOSED CIRCUIT TV ON/OFF
21. TORPEDO TUBE INDICATOR ON/OFF
22. TORPEDO TUBE FLOOD ON/OFF
23. FIRE CONTROL PANEL ACTIVATE
24. RUDDER INDICATOR
25. EMERGENCY BALLAST CONTROL
26. HATCH INDICATOR
27. COMPASS
28. LATITUDE INDICATOR
29. BOW PLANE INDICATOR
30. HEADING INDICATOR
31. MULTIPURPOSE VIEW SCREEN
32. THROTTLE SPEED INDICATOR
33. DIVE PLANE INDICATORS

1. Map Display:
Use to determine present location at all times.

2. Fire Control Panel:
The Fire Control Panel consists of four controls. From left to right their functions are as follows:

A. ***Select weapon*** *(Use the Shift F5 key, or click on with mouse).*
Target selection is fully automatic.

B. ***Lock on target*** *(Use the Shift F6 key, or click on with mouse).*

C. ***3-D Imaging Display*** *(Use the Shift F7 key, or click on with mouse).*

D. ***FIRE*** *(Use the Shift F8 key, or click on with mouse).*

SONAR:
There are two types of sonar used in the U.S.S. Blackhawk:
Passive sonar - Listening for sound produced by other vessels, responsibility of sonarman.
Active sonar - Sending out sound waves to detect underwater objects. Size and distance can be measured when an object has been detected. Active sonar consists of Vertical and Ranging Sonar, explained below.

3. Vertical Sonar:
Vertical sonar determines the distance above and below your submarine to a solid object such as an iceberg or the ocean floor. The center point on the screen represents your vessel. Each line on the screen represents 10 ft above or below your vessel. When an object is present within 100 ft above or below the sub, the lines on your screen become highlighted to indicate the distance of the object from your location.

4. Ranging Sonar:
Ranging Sonar indicates obstacles within a 1000 yd. radius around the submarine.

5. Depth Gauge:
Displays current depth.

6. Water Temperature Gauge:
Displays current water temperature in degrees Celsius.

7. Time Clock:
Displays current time of day.

8. Speed Indicator:
Displays speed in knots.

9. RPM Indicator:
Displays engine Revolutions Per Minute.

10. Stern Plane In dicator:
Indicates the angle of inclination of the Stern Plane.

11. Coordinate Display Screen (Position Indicator):
This screen shows you the course coordinates of your last way point.

12. Dive Lever:
Use this lever to increase or decrease ballast, which will allow you to set the bow and stern planes so that your sub may surface or dive. Using the up and down [Arrow] keys, move the lever up and down. Using the mouse, place the mouse cursor on the lever and hold down the left mouse button. Now move the cursor in the direction you wish to adjust the lever.

13. Engine Lever:
Use this lever to adjust the running speed of the submarine. Use the [+] key to accelerate, the [-] to decelerate. Using the mouse, place the mouse cursor on the lever and hold down the left mouse button. Now move the cursor in the direction you wish to adjust the lever.

14. Ballast Indicator:
Indicates ballast level in four separate tanks aboard the submarine.

15. Silent Running On/Off:
Activates or deactivates Silent Run. When Silent Running is active, noise eliminating transducers mask noise produced by the submarine, reducing the likelihood of discovery by a hostile force. *(Use the Shift F4 key, or click on with mouse)*

16. Silent Run Indicator:
Indicates whether Silent Running is active.

17. Sonar On/Off:
Activates or deactivates the active sonar.
(Use the Shift F3 key, or click on with mouse).

18. Attitude Indicator:
Gauges the vertical angle of the submarine.

19. Wheel:
You can change direction using the left and right [Arrow] keys to turn the wheel. If you're using a mouse, place the mouse cursor on the wheel and hold down the left mouse button. Continue holding the left button as you move the cursor to the left or right.

20. Closed Circuit Monitor On/Off:
This monitor enables the navigator to see any obstacles in the path of the sub. The closed circuit system is vital to successful navigation.
(Use the Shift F1 key, or with click on mouse).

21. Torpedo Tube Flood Control Indicator:
Indicates whether Torpedo tubes have been flooded.

22. Torpedo Tube Flood On/Off:
Floods torpedo tubes. Switches automatically when weapon locks on.

23. Fire Control Panel Activate Button:
Lowers Fire Control Panel from ceiling for easy access.
(Use the Shift F2 key, or click on with mouse).

24. Rudder Indicator:
Indicates the current position of the Rudder.

25. Emergency Ballast Control:
In the event of an emergency, it may be necessary for the Blackhawk to surface quickly. The emergency ballast allows the sub to surface automatically under most conditions.

26. Hatch Indicators:
There are 3 exterior hatches aboard the U.S.S. Blackhawk. The purpose of the hatch indicators is to keep you informed as to whether the exterior hatches are open or closed. If an indicator is lighted, a hatch is open.

27. Analog Compass
Shows compass heading by the position of a needle in relation to a compass point indicating true North.

28. Coordinate Display Screen (Latitude Indicator):
This screen presents you with your current latitude coordinates at all times.

29. Bow Plane Indicator
Indicates the angle of inclination of the Bow Plane.

30. Heading Indicator
Displays compass heading in numbers.

31. Multipurpose View Screen
Use to view weapons selection when using Fire Control Panel, also serves as monitor for Closed Circuit Television.

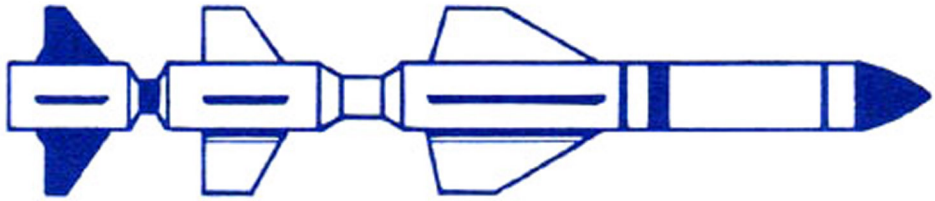
32. Throttle Speed Indicator
A. Lights out- Throttle Stopped.
B. 1 light- Throttle slow
C. 2 lights- Throttle 1/3
D. 3 lights- Throttle 2/3
E. 4 lights- Throttle full
F. All lights red- Throttle reverse

33. Dive Plane Indicators
Indicates dive plane position

TORPEDO ROOM MISSILES

HARPOON

The 'Harpoon' missile is an active radar homing weapon. It delivers a 1000 lb. penetration/blast warhead over ranges of up to 150 nautical miles against surface ship targets. It is propelled by a solid rocket booster and turbojet sustainer, and after reaching a maximum altitude of 5,000 ft. it cruises at high subsonic speed.



TORPEDOES

STING RAY

The 'Sting Ray' is active/passive homing to 35 nautical miles at 90 knots. It delivers a 1000 lb. warhead to a depth of 5,000 ft.

EMERSON ELECTRIC MK 2 TORPEDO DECOY

The decoy torpedo is used as a counter measure against attack. The decoy emits a sound signature identical to the mother ship from which it is launched. Decoys need not be targeted.

EQUIPMENT & SYSTEMS

EXPLOSIVES
Plastic explosives for underwater demolition can be found aboard the U.S.S. Blackhawk.

TUBES
The U.S.S. Blackhawk has four forward torpedo tubes which may be used to launch all weapons.

MACHINERY COMPARTMENT
The machinery compartment consists of tools used to reproduce parts in the event of a breakdown. Other life support systems can also be found, such as fresh water, oxygen and scrubber systems.

FRESH WATER SYSTEM
Sea water is desalinated and then distilled to remove minerals. Fresh water is stored for crew use and to generate oxygen.

OXYGEN
Fresh water is pumped into oxygen generator, high amperage (1,050 amps) electricity separates the hydrogen from the oxygen. Hydrogen is pumped overboard and oxygen is stored in a bank of high pressure oxygen bottles. Oxygen is bled into atmosphere as required.

SCRUBBERS
Various gasses in the atmosphere are maintained at acceptable levels by filtering out excess.

NUCLEAR COMPARTMENT
General Electric pressurized water cooled S6G reactor. Two geared turbines, one shaft. Due to the extreme hazard of radiation exposure in the nuclear reactor compartment, admittance is not allowed.

DEFENSIVE STRATEGY (*WHEN ATTACK IS IMMINENT*)

PREPARING FOR ATTACK

If you believe attack is imminent, it's very important to react quickly! The following suggestions will aid you in the survival of your submarine and crew.

RUN SILENT

The key to submarine survival is evasion through 'stealth' or silent running. The U.S.S. Blackhawk is equipped with the latest in electronic noise eliminating transducers which are located at various points along the propeller shaft. The transducers are attached to the steel casing surrounding the shaft. They pick up generated sound waves which are fed into a computer. The computer creates the exact opposite phase sound wave which cancels out the noise. This makes for much improved silent running; however, the transducer is only effective if the submarine is operated at speeds of 5 knots or less.

SONAR

Passive sonar is a must, because active sonar will give away your position. As soon as possible, confirm a fix on enemy target.

WEAPONS

You must first select a weapon. When using harpoon missiles and Sting Ray Torpedoes you MUST first lock on to your target. Remember that a weapon launch may temporarily give away your position during silent running.
Decoy torpedo may be used to draw enemy fire if under attack.

DIVE DEEP

Diving deep and changing course will aid your evasion tactics. In some instances the bottom terrain will help hide your position.

INVERSION LAYERS

A layer of water that is warmer than the surrounding water is called an inversion layer. An inversion layer
will deflect sonar
signals from above.

US NAVY TERMINOLOGY

Aye aye	Yes Sir
Fish	Torpedo
Stern	Rear of ship
Aft	Near, toward or in the stern of a ship
Bow	Front of ship
Port	Left side of ship
Starboard	Right side of ship
Stern Planes	Submarines rear navigational diving planes
Bow Planes	Submarines front navigational diving planes
Rudder	Submarines left/right navigational control
Ballast Tanks	Diving and surfacing controls
Flooding tubes	Flooding torpedo tubes in preparation for launch
Green board	All control room systems ready for diving
Hatch	Passage way in, out, or through submarine
Screws	Ships propellers
Signature	Identifying ships through their unique sound
Active Sonar	Sending active sound waves
Passive Sonar	Listening for sound created by other ships
Ping	Active sonar sound

FIRST AID PROCEDURES

CARDIOPULMONARY RESUSCITATION (CPR)

CPR is an emergency life saving technique. To understand how CPR can sustain life, consider these two definitions of death:

A. **CLINICAL DEATH** - The heartbeat and breathing have stopped. This is also known as near or apparent death, and it may be averted, or reversed. 'Sudden Death' is sudden, unexpected clinical death. Some common causes of sudden death are:
Cardiac arrest
Electric shock
Drowning
Drug overdose
Suffocation
Severe allergic reactions

B. **BIOLOGICAL DEATH** - Permanent brain death due to lack of oxygen.

During the first few minutes of clinical death, promptly initiated CPR may turn the victim back to productive life. Without CPR, biological death will occur. Speed in starting CPR and in getting specialized medical care for the victim are the keys to saving lives.
When CPR is started within 4 minutes, the victim's chances of leaving the hospital alive are four times greater than those of a victim who does not receive CPR until after 4 minutes.
As a rescuer acting in good faith, you should remember that once CPR has begun, you may stop only when:
1. The victim recovers
2. Another trained individual takes over.
3. You are too exhausted to continue.

Cardiopulmonary resuscitation includes three basic rescue skills, the ABC'S of CPR: Airway, Breathing, and Circulation.

AIRWAY - The first action for successful resuscitation is immediate opening of the airway. It is important to remember that the back of the tongue and the epiglottis are the most common cause of airway obstruction in the unconscious victim. Since the tongue directly, and the epiglottis, indirectly, are attached to the lower jaw, tilting the head back and moving the lower jaw (chin) forward lifts the tongue and the epiglottis from the back of the throat and usually opens the airway.
BREATHING - When breathing stops, the body has only the oxygen remaining in the lungs and bloodstream. It has no other oxygen reserve. Therefore, when breathing stops, cardiac arrest and death quickly follow. Mouth-to-mouth rescue breathing

is the quickest way to get oxygen into the victim's lungs. There is more than enough oxygen in the air you breath into the victim to at least partly supply his or her needs. Rescue breathing must be performed until the victim can breath on his or her own or until trained professionals take over.

Remember: If the victim's heart is beating, you must (1) maintain an open airway and (2) breath (for the adult victim) once every 5 seconds (12 times per minute). If the victim's heart is not beating, you will have to perform mouth-to-mouth rescue breathing plus chest compressions.

CIRCULATION - The third skill of CPR is chest compressions, which replace the heartbeats of the victim. They maintain some blood flow to the lungs, brain, coronary arteries, and other major organs. Any time chest compressions are performed, mouth-to-mouth rescue breathing must also be performed.

NOTE: THE FOLLOWING (ONE MAN) CPR PERFORMANCE GUIDELINE WAS TAKEN FROM THE 1987 'HEARTSAVER MANUAL' BY THE AMERICAN HEART ASSOCIATION.

1. Lay Victim On Back (Head Must Not Be Above Level Of Heart)

2. Shake And Shout To Establish Responsiveness

3. Call For Help

4. Establish The Airway (Open The Mouth And Sweep With Fingers)

5. Look, Listen, And Feel (Look For Chest Rising, Listen For Breath, Feel For Breath With Cheek.)

6. Give 2 Good Breaths (After Tilting Head Back And Opening Mouth)

7. Repeat Step #5.

8. Check Pulse For 5-10 Seconds.

9. After The Above Steps And Still No Vital Signs, Begin Compressions. Position Heel Of Hands Approx. 3" Above The End Of The Sternum. Compress The Chest 1 1/2 - 2' At A Rate Of 100 Times Per Minute. The Ratio Of Compressions To Breaths (for 1 Person) Are, 15 Compressions To 2 Breaths. Check For Pulse Every Minute. Continue Step #8 Until Breathing And Pulse Are Established Or, Until Competent Help Has Arrived To Relieve You.

HOW TO READ THIS MANUAL

Throughout this manual we will use the following ways of representing information:
MENU COMMANDS will be CAPITALIZED.
Example: SAVE, RESTORE, QUIT, PAUSE GAME
Typed commands will appear as **bold type.**
Example: 'type: [example game command]'
'type: **cd \sierra**'
Portions of the command line not meant to be typed will *not* appear in bold type. For example, in the line 'type: **cd \sierra**', 'type:' should not be typed.
[EXAMPLE TEXT] and [Keystrokes] will appear in brackets setting them off from the surrounding text.
Example: [NAME OF GAME] [NAME OF DIRECTORY] [Spacebar], [Tab], [Page-Up]
The brackets are not keystrokes and should not be typed.
Two or more keys that should be pressed at the same time will be separated by a hyphen (-). This hyphen is not a keystroke, and should not be typed.
Example: 'Press [Ctrl-I] to view your inventory.'
If a space appears between parts of a command, it is meant to be typed.
Example: 'type **cd \sierra**' (the space between **cd** and **\sierra** should be typed as part of the command)
The term 'diskette' is used to refer to either 3.5" or 5.25" data storage disks.

ALL SYSTEMS

PLEASE NOTE: If there is a README file on your game diskette. It may contain important information and instructions that were not available at the time the documentation and other materials for this game were printed. Failure to review the README file before installing the program may cause unexpected results during installation, loading or playing the game.

MS-DOS README INSTRUCTIONS

From DOS, type **readme** to see the README file onscreen. Use [PageUp]/[PageDown] keys to scroll through the file.

ATARI ST README INSTRUCTIONS

To view the README file from the desktop, double-click on the README.DOC icon. You will see a message box with choices for SHOW, PRINT, and CANCEL. Choose SHOW to view the file onscreen one page at a time. Press [ENTER] to see the next screen. Choose PRINT to print the file. Choose CANCEL to escape the message box.

AMIGA README INSTRUCTIONS

Insert Workbench disk into drive DF0: and turn on your system. Double click on the CLI icon.

Users with one drive: Copy the TYPE command into your RAM disk. See your Amiga owner's manual for instructions. Insert Disk 1. Type: type readme.
Users with more than one drive: Insert Workbench in drive DF0:. Insert Disk 1 in drive DF1:. Type cd df1:. Type: type readme.

GETTING STARTED: DISKETTE DRIVES

It is always advisable to make back-up copies of your master program diskettes to increase the life of the masters and guard against accidents. Follow your computer's instructions to make copies of all game diskettes.
Even if you will be playing from a hard disk, you may want to format a blank diskette for saving games. *In fact, saving games to diskettes is a good idea, even if you are playing the game from your hard disk.* Follow your computer's instructions to format a blank diskette and keep it handy for saving your game as you play. For some helpful tips on saving games, see the 'Saving Your Game' (Page 24) section of this manual.
When installing your program, you may be prompted to insert a 'Drivers' disk. If you receive this prompt, please examine your disks and insert the disk marked 'Drivers' and press [ENTER], so that the appropriate drivers will be loaded. Some games do not include a separate 'Drivers' disk.

MS-DOS

INSTALL THE GAME

Place the back-up copy you have made of Disk 1 into your diskette drive. Type the letter of the disk drive you have placed the disk into followed by a colon (for example: **a:**), and press [ENTER]. Type: **install** and press [ENTER].
Answer the onscreen questions using the up and down [Arrow] keys to highlight your selections, then press [ENTER] to select. You will be asked if you wish to install the game on your hard disk. If you do *not* wish the game to be installed on your hard disk, press [ESC] to skip this step. If you want to install the game on your hard disk, enter the letter designation of your hard disk (usually C) and follow the prompts.
PLEASE NOTE: Even if you install to a hard disk, the install procedure will write a file named RESOURCE.CFG to Disk 1. For the installation to be completed correctly, DISK 1 MUST NOT BE WRITE PROTECTED. No other files on Disk 1 are written or changed by the install command.

LOADING INSTRUCTIONS

After completing the INSTALL procedure:
From diskettes:
1. Place Disk 1 into the A: drive.
2. Type: **a:** and press [ENTER].
3. Type: **sierra** and press [ENTER].
From hard disk:
1. From your root directory, type **cd \sierra** and press [ENTER].
2. Type **[SPECIFIC COMMAND]** and press [ENTER].

SAVING GAMES TO DISKETTES

PLEASE NOTE: If you're playing from diskettes, you must have a separate formatted diskette ready before you can save a game. We also recommend that you create several directories on your save game disk in order to assure adequate space for save game storage.

Choose SAVE GAME from the File menu or press the [F5] key. The Save Game menu will appear.

Use your [Tab] key to choose CHANGE DIRECTORY. Backspace or press [Ctrl-C] to clear the command line.

Type the letter of the drive you are using for saved games, followed by a colon (Example: **a:**) and press [ENTER].

Type the name of your saved game and press [ENTER] to complete the SAVE GAME procedure. If your disk for saving games is full, you may reformat it (this will erase the saved games on the disk) and use it over, or use another formatted blank disk.

SAVING GAMES TO HARD DISK

If you choose to save games to the hard disk, the program will automatically try to save to the game's own directory. If you run out of space for saving games, try one of the following alternatives:

Save additional games to a diskette.

Save games to a different directory by choosing CHANGE DIRECTORY from the SAVE GAME menu (inside the game).

Create a new hard disk directory from DOS, using DOS instructions.Delete all saved games and the saved game directory from your hard disk by following DOS instructions (outside the game). The program will create a new index file within the game directory.

ATARI ST

LOADING INSTRUCTIONS

Note: If you are using an Atari 520 ST without memory expansion, turn off all desk accessories (rename .ACC extension .ACX) before running your Sierra game.

1. If you are playing the game from diskettes: Place Disk 1 in drive A, and open the disk by double-clicking on its icon. Start the game by double clicking on SIERRA.PRG.

2. If you are playing the game from a hard disk: Open the disk by double-clicking on its icon, then open the game folder by double-clicking on the game folder icon. Start the game by double-clicking on SIERRA.PRG

HARD DISK INSTALLATION

Please note: More than 512K of memory is needed in order to run Sierra games on your ST If you have a hard disk.

1. Open the hard disk by double-clicking on its icon.

2. Create a game folder by choosing NEW FOLDER...from the File menu. Open the new folder by double-clicking on its icon.
3. Place Disk 1 in drive A.
4. Copy the game disk into the new game folder by dragging the drive A icon into the window you opened in Step 3.
5. Repeat steps **3** and **4** for each of the other game disks.
6. Put the master disks away in a safe place.

CHOOSE A MUSIC DEVICE (Optional)

Your Sierra game is initially set up to play music and sounds through the Atari ST's internal speaker. If you have one of the supported MIDI synthesizers, you may run the MUSIC program to have the game play music through the synthesizer.

1. Open the game disk/folder by double-clicking on its icon.
2. Run the MUSIC program by double-clicking on the MUSIC.PRG icon.
3. Select MUSIC DEVICE from the Options menu.
4. Select your synthesizer (or 'Atari ST Internal Sound') by clicking on the appropriate button. Then click on OK.
5. Select INSTALL GAME from the File menu. This will replace the RESOURCE.CFG file on your disk.

Please note: It is important to turn your synthesizer **on** before starting the game.

AMIGA

INSTALLING THE GAME

NOTE: RENAME your copies of all game disks to remove the words 'COPY OF' from the disk name. If the words 'COPY OF' are not removed from the disk names of ALL the copies, the system will continue to ask for the original disk, and will not run the game.

1. Boot your system with Workbench, and insert Disk 1 of your Sierra game.
2. Double-click on the disk icon, then double-click on the INSTALL icon.
3. Follow the onscreen prompts, choosing your selection with the mouse by clicking once on the item.
4. You will be asked if you wish to install the game on your hard disk. If you do *not* wish the game to be installed on your hard disk, select NO. If you want to install the game on your hard disk, select YES.
5. Using your mouse, select the drive on which you wish to install the game.
6. Follow the onscreen prompts to complete the installation.

LOADING INSTRUCTIONS

From Diskettes:

1. If you have less than 1 megabyte of memory for your Amiga, turn your system off and disconnect any external drives.
2. Insert Disk 1 into drive DF0:.
3. Turn on your system.

From Hard Disk:

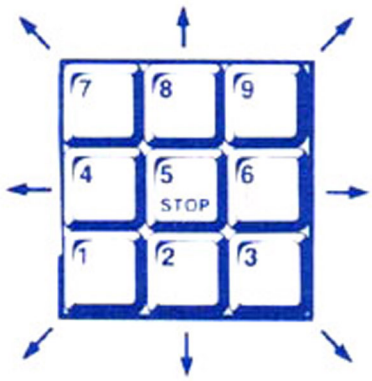
1. Load Workbench and double-click on your hard disk icon.
2. Double-click on the SIERRA GAMES drawer.
3. Click on the drawer for the desired Sierra game.
4. Click on the game icon.

ALL SYSTEMS

MOVING YOUR CHARACTER

You may move your character on the screen with the [Arrow] keys, the numeric keypad, the joystick, or the mouse. To halt your character's steps with the keypad, press the number 5, or press the last used direction key again. **Do not attempt to move the character by holding down the direction key. This will cause the character to start and stop continuously, resulting in very slow progress.**

Using the mouse, position the arrow where you want the character to move, then click the left mouse button (if your mouse has multiple buttons).



MENUS

When you press [ESC], a menu bar will appear at the top of your screen with several menus that can be opened to show the command choices available to you.

KEYS TO USE IN THE MENUS

Use the left and right [Arrow] keys to open a menu, and the up and down [Arrow] keys to highlight items within a menu.

Press [ENTER] to select a highlighted command.

Press [ESC] to return to the game without choosing a command.

GAME SPEED CONTROL

At times it may be useful to slow down the speed of the game animation in order to negotiate a tricky section, or observe something more carefully. At other times, you may wish to speed up the game actions. To increase or decrease animation speed, choose FASTER or SLOWER from the Speed Menu, or use the [+] key to increase speed, the [-] key to decrease speed, or the [=] key to return to normal animation speed.

SHORT CUTS FOR COMMON COMMANDS

You can use function and control keys to short cut many common commands.

[**F1**]	Help
[**F2**]	Toggle sound on/off
[**F3**], [**Spacebar**]	Repeat previous command
[**F5**]	Save Game
[**F7**]	Restore (saved) Game
[**F9**]	Restart Game (from beginning)
[**Tab**]	Inventory
[**Ctrl-I**]	Inventory
[**Ctrl-P**]	Pause Game
[**Ctrl-Q**]	Quit Game
[+]	Increase Animation Speed
[-]	Decrease Animation Speed
[=]	Normal Animation Speed
[**Ctrl-V**]	Change Volume

USING YOUR TAB KEY

While playing Sierra games, your [Tab] key will perform two major functions. You will use it to review the items in your inventory, and also (if you're not using a mouse) to select options from certain menus. The following menus will require the use of the [Tab] key for highlighting menu options:

Menu	**Choose from**
Restart Game	Restart, Continue
Quit Game	Quit, Don't Quit
Save Game	Save, Cancel, Change Directory, Replace
Restore Game	Restore, Cancel, Change Directory
[Death Message Box]	Restore, Restart, Quit

USING THE MOUSE (optional)

To move your character using the mouse, position the arrow to where you want the character to move, then click the left mouse button.

RETYPING COMMANDS

If you wish to repeat a command select RETYPE from the ACTION menu or press the [SPACEBAR] or [F3].

INVENTORY

If you wish to see the items you are carrying, select INVENTORY from the Action menu, press [Ctrl-I], or press the [Tab] key. A list of the items you are carrying will be displayed. To look more closely at an item, use your [Arrow] keys to highlight the item and press [ENTER]. A picture of the item, along with a brief description, will appear on your screen. Press [ENTER] or [ESC] to resume play.

PAUSING YOUR GAME

If you wish to pause the game, select PAUSE from the Action menu, or press [Ctrl-P]. Press [ESC] or [ENTER] to resume play.

SAVING YOUR GAME

If you wish to save your game, select SAVE from the File menu, or press [F5]. To allow for errors in judgement and creative exploration, we recommend that you frequently save your game in progress, and that you save several different games from different points as you play. You will always want to save your game before encountering potentially dangerous situations. You should also save your game after you have made significant progress.

Please note: If you're playing from diskettes, you must have a separate formatted diskette ready before you can save a game. Since each disk can only hold a limited number of games, we recommend that you have more than one disk formatted, in order to assure adequate space for save game storage.

If you choose to save games to your hard disk, we suggest that you create one or more save game directories or folders on your hard disk. See your computer's instructions for creating directories or folders.You may name your saved games using standard English phrases. For example, if you are standing on a sandy beach, you might call your game '**standing on sandy beach**', or simply '**beach**'.

RESTORING YOUR GAME

Select RESTORE from the File menu, or press [F7]. You will be prompted to select the game you wish to restore. (On a single drive system, you will be prompted to insert your save game disk). Highlight the desired game and select RESTORE. If the game you wish to restore is in a different directory, select CHANGE DIRECTORY.

Please note: If you do not have a mouse, use the [Tab] key to toggle between RESTORE and CHANGE DIRECTORY.

QUITTING YOUR GAME

To stop playing, select QUIT from the File menu, or press [Ctrl-Q].

RESTARTING YOUR GAME

If you wish to restart your game at any time during play, select RESTART from the file menu, or press the [F9] key. The game will begin again (INSERT GAME SPECIFIC INFORMATION).

COMMUNICATING WITH CODENAME: *ICEMAN*

You can generally interact with the game by typing simple commands consisting of as little as a noun and a verb. For instance, the command **sit in the chair** can be shortened to **sit in chair**, or even **sit**. Unless otherwise directed, follow all typed commands with [ENTER]

Many characters in the game will have information of one kind or another for you. To talk with a character, type: **talk to** [character] (for example: **talk to man**).
You may encounter objects you need along the way. To take an object, type: **take** or **get** [object]. For example, **take the note**. You will need to use the objects you acquire as you explore. You can try different things such as typing: **use the** [object], or **give the** [object] **to** [character]. Different approaches to a puzzle may bring about a different outcome.
Pay close attention to details. To examine objects, type **look at the** [object]. (for example: **look at the table**), or press [Ctrl-L], then type the name of the object.
To get a general description of the current room or scene, type **look around**, or use your mouse to choose LOOK from the menu.
A message window will appear after you enter each command, and at other times during the game. When you have read the message, press [ENTER] to remove the window and resume play.
Codename Iceman understands many common verbs. Here are some you might try:

ASK	DROP	SEARCH	TELL
BUY	EAT	PLAY	SIT
THROW	CLIMB	GET	PUSH
TAKE	USE	CLOSE	GIVE
READ	STAND	WALK	DRINK
OPEN	RUN		

LOOK everywhere. Thoroughly explore your surroundings. Open doors and drawers, look under things and behind things for valuable objects and clues. Look closely at all objects you encounter or you may miss important details.

EXPLORE each area of the game very carefully. Search every area of the game. Be careful!! There are many hazards awaiting you!

DRAW A MAP as you progress through the game. Make a note of each area you visit, and include information about objects found there and dangerous areas nearby. If you miss an area, you may miss an important clue!

GET objects you think you will need. You will come across a number of objects that may be of use to you later. You can see an inventory of items on hand by pressing the [Tab] key at any time.

USE the items you have picked up to solve problems in the game, or to help you to make progress and discover more clues.

BE CAREFUL, and remain alert at all times — disaster may strike in the most unlikely of places.

SAVE YOUR GAME OFTEN, especially when you are about to try something new or potentially dangerous. This way, if the worst should happen, you won't have to start all over again from the beginning. Save games at different points of the game, so you will be able to return to a desired point in the game. In effect, this will enable you to travel backward through time and do things differently if you wish.

DON'T GET DISCOURAGED. If you come to an obstacle that seems insurmountable, don't despair. Spend some time exploring another area, and come back later. Every problem in the game has at least one solution, and some have more than one. Sometimes solving a problem one way will make it harder to solve the next, and sometimes it will make it easier. If you get stuck, you might try backtracking to an earlier point in the game, then choosing a different path. If all else fails, you can buy the [*Name Of Game*] hint book from the dealer who sold you the game, or you can order it directly from Sierra On-Line by calling (800) 326-6654.

BRING ALONG SOME HELP. You may find it helpful (and fun) to play the game with a friend. Two (or more) heads are better than one at interpreting clues and solving problems

NEW FEATURES

Note: **Codename: ICEMAN** features a new and improved playing system for easy interface. Here are some of the improvements we think you'll appreciate:

1. LOOK - If you simply type **look** in any room, you'll automatically get a description of the object(s) directly in front of your character. If you type **look at** [person] or [object], and your character is not facing that person or object, your character will turn to face the person or object before the game gives you a description.

2. GET, TALK, TAKE, (COMMANDS OTHER THAN 'LOOK') - In some cases, you may want to talk to a person or get an object that is not directly in front of you. Previously, the game might have responded by saying 'You're not close enough'. With ICEMAN's improved playing system, if your character isn't close enough, he'll automatically move closer to the person or object before getting it or talking to him/her.

3. DOORS - Most doors in the game will open automatically when your character approaches them. This eliminates repeatedly typing **open door**.

4. MOVING YOUR CHARACTER - To easily walk to a visible point on your screen, type **walk to** [object]. Your character will automatically make his way to the desired point. Moving your character is generally easier with the improved playing system.

NEED A HINT?

If you find yourself 'a little stuck' while playing a Sierra game, try the following ideas:

1. If you have a modem, you can talk to the Sierra Bulletin Board through the following number:

(209) 683-4463

Our settings are 300, 1200 or 2400 Baud; 8 Data; N Parity; 1 Stop Bit. Our sysop will be happy to help you.

2. Many other bulletin boards also provide hints to many of our games.

A. CompuServe: Go into the Gamers Forum (GO GAMERS) or write E-Mail to 76004,2143.

B. Prodigy: Write E-Mail to 'HTWS90E', or go to the PC Club and enter the adventure games forum (Jumpword: PC CLUB).

C. PCLink: Select PCLink Plus, enter Publisher's Connection, select Publishers Forums, then Sierra On-Line. E-Mail may be written to the User ID 'SierraOnLi'.

D. America's On-Line: Select the KEYWORD option from the 'Goto' menu, and type: **Sierra**. E-Mail may also be written to the User ID 'Sierras'.

E. GEnie: From the main menu select 10 (Games), then select 1 (Games Round Table). Select 1 (Games Bulletin Board), and type **set 22** at the '?' prompt. This will take you into the Sierra On-Line area.

For more information on these BBS lines, you can call these toll-free numbers:

CompuServe (800) 848-8199
Prodigy (800) 822-6922
PCLink (800) 458-8532
GEnie (800) 638-9636

3. The magazine Questbuster's Journal is a helpful source of many game hints.

4. Your local software dealer may carry our hint books, or may be willing to order them for you.

5. If you are unable to obtain a hint book through a dealer, you can order one directly from us. Call (800) 326-6654 to place your order with a Visa, MasterCard or American Express card, or write Sierra On-Line Inc., Order Department, P.O. Box 485, Coarsegold, CA 93614.

6. If the hint book is not yet available for the game you are playing, call our automated hint line at **(900) 370-KLUE** to receive a hint. NOTE: California residents, please dial **(900) 370-5113**.

THIS SERVICE IS AVAILABLE 24 HOURS A DAY. THE CHARGES ARE: 75 CENTS FOR THE FIRST MINUTE AND 50 CENTS FOR EACH ADDITIONAL MINUTE. IF YOU ARE UNDER 18 YEARS OF AGE, YOU MUST HAVE A PARENT'S PERMISSION TO CALL. THE CONTENTS OF ALL MESSAGES ARE SOLELY THE RESPONSIBILITY OF SIERRA ON-LINE. HINTS WILL NOT BE GIVEN ON OTHER SIERRA TELEPHONE LINES.

PROBLEM DISK?
TECHNICAL HELP (MS DOS ONLY)

If you are having problems with a game disk, try these suggestions before assuming the disk is faulty:

If you receive any of the following messages:

1. 'Insert Disk (#)' when you have already inserted that diskette, or have installed the game on your hard disk
2. 'Out of Handles' or 'Out of Heap', or if the game locks up at any point
3. 'Disk Error'

Then you may have memory resident programs loaded into your RAM memory. You will need to boot your system from a diskette containing your operating system only. Follow these instructions to create a 'Sierra Boot Disk'.

First format a blank disk with DOS system files (using /s) to make a bootable disk:

FORMATTING FROM A HARD DRIVE

A) Place a blank disk in drive a:

B) At the C prompt, type: format a:/s

NOTE: If your A: drive is a high density drive and you are using double density disks, you will need to type: format a:/4/s (for 5.25" disks)

or type: format a:/n:9/s (for 3.5" disks)

FORMATTING FROM A DISKETTE DRIVE

A) Place your original DOS disk in drive A.

B) At the A prompt, type: format a:/s (be sure to switch to a blank disk when prompted by the FORMAT program.)

NOTE: If your A: drive is a high density drive and you are using double density disks, you will need to type: format a:/4/s (for 5.25" disks)

or type: format a:/n:9/s (for 3.5" disks)

C) Press [ENTER]

D) Respond to DOS prompts.

Now you should create a CONFIG.SYS file on your Sierra Boot Disk, with a files=20 statement. Follow these instructions to create this file:

A) Type: **a:**	[ENTER]
B) Type: **copy con config.sys**	[ENTER]
C) Type: **files=20**	[ENTER]
D) Press [F6]	[ENTER]

You should see the message: '1 File(s) copied'. You will now have to re-boot your computer with your new Sierra Boot Disk in the drive. Turn your computer off then on, or press [Ctrl-Alt-Del].

If this does not clear the above messages, call (209) 683-8989 for technical help. Our technical staff will be happy to help you.

TECHNICAL HELP (ALL SYSTEMS)

Technical assistance is only a telephone call away. Call (209) 683-8989 for convenient, person-to-person service, or if you prefer, you may request assistance by mail. If you choose to write to us with your request, please state your computer type and the nature of your problem.

If you find that you need to send for replacement diskettes, send the original disk 1 in the size you need (3.5" or 5.25") to:

Sierra On-Line
P.O. Box 485
Coarsegold, CA 93614
Attention: RETURNS

Be sure to include a note stating your computer type, and the size of diskette you need (5.25" or 3.5").

We will gladly replace your program free of charge for the first 90 days of ownership (please enclose a copy of your dated sales receipt with your request). After 90 days there is a $5.00 charge for 5.25" diskettes, and a $10.00 charge for 3.5" diskettes.

Johnny - Here's instructions on how to play the dice game - Good Luck!

Boss - Player with highest hand on First Roll
Horse - Player who wins the Round
Winner - Player that wins 2 Rounds
Come Up - Boss Player Calling opponents hand

Hands in descending Value

5 of A Kind
4 of A Kind
Full House
3 of A Kind
2 pair
1 pair

Note: Straights ARE not Counted in this game

After the First Roll, the player with the best poker hand is called the 'Boss' And gets the next Roll. The 'Boss' has the option of calling the game Based on the strength of his hand.

Note: IF AT ANYTIME your opponent becomes the 'Boss', you will NOT be able to see his second Roll. This is to prevent you from knowing ~~his~~ the strength of his hand.

EXAMple Roll: (FIRST ROLL) you - 4, 4, 4, 1, 2
Him - 4, 4, 6, 3, 5

IN the ABOVE ROLL, you would be 'Boss,' The 3 of A Kind (4's), in your hand BEATS the pair you opponent is holding. The next obvious move would be for you to pick up the 1 & 2 From The Table and Roll them again. After the 2nd ROLL, The 'Boss' Player has the option of either calling the opponent's hand (By Asking Him to 'Come Up'), or starting the Round over again. IF the Boss CHOOSES TO start the Round Again, Both Players Begin the next Round Even. IF the Round Continues, the player with the highest hand Wins. The Winner then earns A 'HORSE'. The Player who earns 2 Horses wins the game.

Note: IF A Player is the 'Boss,' and he has 2 Pair, He Can't Roll For The Full House. He must Roll 3 Dice.
IF Both Players have 2 pair on the FIRST ROLL,
OR one player has a pair and the other has 2 pair and they match on the high pair, It's a push (Roll Again)

WALKTHROUGH

WARNING! The following section includes hints that experienced game players may not want to see. Continue reading ONLY if you have trouble getting started playing ***Codename: ICEMAN.***

A message window will appear after you enter each command. When you have read the message, press [ENTER] to remove the window and resume play.
The opening of the game finds our hero, Lt. Commander Johnny B. Westland lounging on a sunny beach in Tahiti enjoying a little well deserved R & R. Next to Johnny is a table.
Type **look table**
On the table is a magazine.
Type **look magazine**
Type **read magazine**
There is an interesting article.
Type **stand up**
Walk left and find volleyball game.
Type **play ball**
Walk into water after girl.
Follow CPR procedure.
Walk to front of hotel.
Type **open door**
When you are standing inside the hotel lobby, facing the desk:
Type **look**
You will receive a description of the clerk.
Walk to the center of the room. Turn toward the east wall.
Type **look**
You will receive a description of the door to the cocktail lounge.
Type **look girl**
Type **look picture**
Type **look plant**
Type **look flowers**
Johnny will turn toward each object.
Type **smell flowers**
Johnny will walk to the table and smell the flowers.
Type **talk to clerk**
Johnny will walk to the desk.
Type **get key**
Press [Tab] to view inventory. Using your mouse or [Arrow] keys, select KEY and press [ENTER]. A picture of your hotel room key will appear. Press [ESC] to resume play.
Walk to the sign on the north wall.
Type **look sign**
Walk through the door on the east wall.
This might be a good time to save your game.
Walk to the empty bar stool.
Type **sit**
Type **talk to girl**
Type **buy girl drink**
O.K. Johnny, you're on your own now. Continue exploring the island to discover your mission. Good luck!

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